

# What Is Addiction? And What Are Its True Causes?

*By Special to ACSH — February 1, 2019*



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## **By Wolfgang Vogel**

This country is, again, in the grip of an opioid drug addiction crisis. Individuals addicted to opioid drugs cause many social, economic, legal and health problems – including many drug-induced deaths. Everyone is concerned and everybody has a specific solution to the problem.

Unfortunately, most individuals know little about what addiction actually is, and even less about what causes it. Let's clarify some misconceptions and provide some scientific explanations.

First, what is addiction?

Addiction, or dependence, has a specific medical definition as documented in the diagnostic statistical manual, otherwise known as the DSM. However, in general terms, it can be characterized as an uncontrollable craving for a substance or drug, even when its use can result in negative health effects, or even death. This craving is caused by an overwhelming desire to experience euphoria, or to avoid unpleasant feelings. In contrast, the *controlled* use of such substances is not considered addiction.

Second, what causes this uncontrollable craving, which eventually leads to addiction?

Two hypotheses exist, and the word “substance” being used refers to FDA-approved drugs (e.g. OxyContin or oxycodone) as well as non-FDA-approved substances (e.g., heroin, LSD).

The first hypothesis blames the substance as the sole cause of the problem. Here, use of a particular substance causes the individual to become slowly addicted to it. To cure addiction requires removing the drug from the individual, or the individual from the substance using physical restraint, or even jail. This approach is the belief of most legislatures, law enforcement officials and

the majority of the lay population. It, however, has little common-sense support from those who view this dilemma with either a historical and scientific perspective.

Common sense tells us that use of a substance does not necessarily lead to its abuse. While many young people do experiment with alcohol or nicotine or other substances, most will not use them in the future at all, or in a controlled fashion where only a small minority will become addicted.

Scientific experiments and studies have demonstrated that drug exposure alone does not lead to addiction or abuse, except, again, in a minority of subjects. Making a substance illegal or eliminating its presence altogether, or incarcerating the users has historically been found to be of little value. Prohibition was a prime example, where alcohol was legally banned nearly a century ago but was still available from illegal sources (albeit often in adulterated form causing many severe health problems or even death).

In addition, prohibition bred corruption, crime and murder. Similarly, most deaths today from substance abuse are not caused by the legal drugs, but instead through the purchase of substances from illegal sources. It is here where the purity, dose and toxic impurities of the product are largely unknown; these substances are often highly toxic and potentially deadly.

As a nation, we have spent billions on the so-called “War on Drugs” and have jailed millions of people with drug problems over the last several decades – with no success whatsoever. At the same time curtailing legitimate drugs has the problem of punishing the innocent, like in the case of today’s opioid drugs where physicians have become afraid to prescribe pain medications to deserving patients. This dynamic has led to unnecessary suffering, which has even driven some to suicide in an effort to escape intolerable pain. Unfortunately, doctors withholding pain medication from needy patients continues to be done in spite of successive and ongoing failures.

The second hypothesis states that certain individuals are predisposed by genetic and environmental factors to seek the use of psychoactive substances – and to become addicted to them.

Here, only some individuals will develop this uncontrollable craving to obtain euphoria or to escape unpleasant feelings. The majority of the population will not. That portends that the individual – and not the drug – is in the center of addiction. This would explain that with exposure to a psychoactive substance, only a minority – not all – will become addicted to it.

Genetic studies already have found differences between individuals who are, or are not, addicted. Individuals suffering from mental health problems, like depression, are at higher risk of abusing drugs than healthier people. Further, studies have shown that drug abuse is more rampant in low-income, socioeconomic areas. Thus, to solve the problems of addiction requires treating it as an individual and/or medical problem.

Since we do not have the tools to genetically alter an addictive personality, we still can do a lot to help these addicted individuals. Improvement of socioeconomic conditions would be a start to help reduce the risk of addictive behaviors. Psychological and/or medical treatment of individuals at risk, or already afflicted, must be greatly improved.

It’s presently estimated that only 10% of drug abusers, due to limited financial resources, receive

treatment. The National Institute of Drug Abuse estimated that treatment resulting in a reasonable success rate costs about \$5,000 per year, while incarceration costs about \$25,000 – followed by a large relapse rate. Eliminating many, or all, jail sentences would provide a lot of money to effectively treat addicted individuals.

The current success rate of such therapies is roughly 50%. This is not great. But applied to 22 million individuals diagnosed with a substance-use disorder, that would mean proper treatment could help 11 million Americans become drug-free and allow them the chance to again become functioning members of their families, workplace and community. As treatments improve, this number could increase.

It might also be wise for us to be accepting of some unorthodox therapies, like one that is practiced in Switzerland and tentatively in some other European countries. For instance, one calls for addicts receiving pure heroin, under medicinal control, from specific pharmacies. This program has been shown to significantly reduce crime, return many idle addicts back to work and drastically reduce drug-induced health problems and deaths.

Unfortunately, this approach has received little attention thus far. However, all indications show that it is greatly superior to the existing legal approaches. Moreover, it seems to be the only way to effectively treat addiction, help those who suffer from this disorder, and benefit society in general.

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